

**METHOD AND SYSTEM FOR MAKING A MICROMACHINE
DEVICE WITH A GAS PERMEABLE ENCLOSURE**

ABSTRACT

[0050] A method for coating a micro-electromechanical system (MEMS) device is provided. A coating material, such as a ceramic slurry, may be utilized to form a gas permeable enclosure or shell around the device after the coating material hardens. A vacuum may be applied near the device to exert an attractive force on the coating material to aid in homogenously distributing the coating material over the device. In addition, a vibration may be applied to the device to aid in distributing the coating material. If the device is attached to a substrate, a hole may be formed through the substrate with one opening near the device and a second opening located elsewhere. The vacuum may then be applied to the second opening to draw the coating material over the device and towards the first opening.